Letter of Transmittal
BLACK & VEATCH Special Projects Corp.

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To: Ms. Sheri Bianchin
United States Environmental Protection Agency
77 West Jackson Boulevard (SRW-6J)
Chicago, Illinois 60604

Date: October 22, 1996
From: Steve Mrkvicka
Project: American Chemical Services
Project No.: 71670
File: C.3

We are sending you: [XXX] Attached [ ] Under separate cover via _____

- [ ] Preliminary Report
- [ ] Final Report
- [XXX] Other: Upper and Lower Aquifer Tech Memo Comments
- [ ] Specifications
- [ ] Change Order
- [ ] Addendum

These items are transmitted:

- [ ] As requested
- [XXX] For your information
- [ ] For your approval
- [ ] For review and comment

Remarks: Enclosed are comments to the Montgomery Watson Upper and Lower Aquifer Technical Memoranda.

I will forward an electronic copy of our comments by E-mail.

If you have any questions, please call me at 312/683-7849.

American Chemical Services
Work Assignment 80-5PJ7

Copy To: P. Hendrixson, USEPA (w/o enclosures); R. Lantz, BVSPC (w/enclosures)
E. Howard, USEPA (w/o enclosures); D. Gountanis, USEPA (w/o enclosures)

Signed: _____ October 22, 1996

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Review Comments on Montgomery Watson's Lower Aquifer Investigation Technical Memorandum September 1996 American Chemical Services, Inc.

Comment No. 1, Executive Summary, Page ES-1, Paragraph 4

The text states, "The thickness of the upper clay confining layer varies from 4 feet to 35 feet to the south." Revise the text to state the following: the thickness of the upper clay confining layer varies from 2.5 feet to 35 feet.

Comment No. 2, Executive Summary, Page ES-2, Paragraph 4

The text states, "Except for the phthalate anomaly, there were no exceedances of remediation levels in samples collected at the downgradient site boundary..." According to Table 8 of the Technical Memorandum, both manganese and thallium exceed remediation levels in MW-33, located at the downgradient site boundary. Revise the statement accordingly.

Comment No. 3, Section 3.1.1, Page 10,

The text states that the upper aquifer thickness varies from 27.5 to 13.5 feet, whereas in the Upper Aquifer Tech Memo (October 1996), Section 3.1, states that it varies from 17 to 11 feet. Revise the documents so that they concur with one another.

Comment No. 4, Section 3.1.2, Page 11, Paragraph 4

Revise the last sentence to state the following: At the northern side of the site, the clay thickness was 2.5 and 4.0 feet at CB-1 and MW-33, respectively.

Comment No. 5, Section 3.5, Page 15, Paragraph 4

The text states that an increase in hydraulic head is noted over the last four days of continuous monitoring (February 27 through March 2). A 0.95-inch rainfall event occurring on Tuesday, February 27, may explain this increase in hydraulic head. This data was provided by the City of Gary, Air & Land Pollution Control Department.

Comment No. 6, Section 7.1, Page 28, Item 2

Revise the text to state: The upper clay confining layer varies in thickness from 35 feet to the south to 2.5 feet to the north.

Comment No. 7, Section 7.3.1.3, Page 32

The sampling of the production wells IW1, IW2, IW3 and IW4, based on the discussions carried out in meetings with USEPA, was to be conducted by isolating the zone of interest with a packer assembly. Revise Section 7.3.1.3 to include this approach.

Comment 8, Section 7.3.1.3, Page 32

Upon completion of the sampling of production wells IW1, IW2, IW3, and IW4, the USEPA has requested time to review the resulting analytical data, prior to well abandonment. Revise Section 7.3.1.3 to include this approach.

Comment 9, Section 7.3.2.3, Page 34

According to USEPA-approved sampling procedures for ACS, sampling of groundwater is to be conducted with pumps, not bailers. Revise this section to include sampling with a pump.

Comment 10, Section 7.3.2.4, Page 34

Upon completion of the sampling of production wells IW5 and IW6, the USEPA has requested time to review the resulting analytical data, prior to well abandonment. Revise Section 7.3.2.4 to include this approach.

Comment 11, Table 14

Include the newly installed well at the MW-10 location, discussed in Section 7.2.1, in the 4th quarter monitoring plan sampling.

Comment 12, Section 6.2.3, page 26

Please provide an explanation for the high inorganic analyte concentrations detected in sample PW02.

Review Comments
Upper Aquifer Investigation Technical Memorandum
October 1996
American Chemical Services, Inc.

Comment No. 1, General

The staff gauge location, SG-9, should be reinstalled. This location was part of the historical monitoring network and provides valuable information pertaining to the ultimate discharge of wetland and PGCS effluent.

Comment No. 2, Section 3.1, Page 6

The text states that the upper aquifer thickness varies from 17 to 11 feet, whereas in the Lower Aquifer Technical Memorandum (September 1996), Section 3.1.1, states that it varies from 27.5 to 13.5 feet. Revise the documents so that they concur with one another.

Comment No. 3, Table 5

The results reported by the USEPA Central Regional Laboratory (CRL) for the analyses of the spilt samples collected from MW-45, MW-48, and MW-49 indicated the presence of additional volatile and semivolatile organic compounds that were not reported by the Respondents in the technical memorandum. These additional organic compounds are listed in the data comparison table (Table 1), which was submitted to USEPA on October 15, 1996. The following reasons are offered to explain the differences:

- IEA, the Respondent's analytical laboratory, diluted the MW-45, MW-48, and MW-49 samples for volatile and semivolatile organic analyses. The dilutions masked the presence of several compounds that were detected in low levels in the USEPA split samples.
- CRL analyzed the volatile organic compound samples for several additional compounds that were not analyzed for in the Respondent samples. As a result, several additional compounds were detected in the split samples.